

GLOSSARY OF SCIENCE TERMS

acceleration - a change in velocity (either speed or direction)

cell - the structural and functional basic unit of all living things

chromosomes - threadlike structures located in cell nuclei of organisms which determine the individual characteristics of the organism

climate - characteristic pattern of weather elements in an area over a period of time

density - mass of a substance per unit volume

equilibrium - state of a system in which forces, influences, reactions, etc. balance each other out so there is no net change

force - push or pull

front - sloping interface between two air masses of different temperature and humidity

gene - unit of heredity composed of DNA forming part of a chromosome

heterozygous – a zygote with inherited different alleles at one or more loci

histogram - a graphic representation of a frequency distribution in which the widths of the contiguous vertical bars are proportional to the class widths of the variable and the heights of the bars are proportional to the class frequencies

homeostasis - state of equilibrium produced by a balance of functions and chemical composition within a system

homozygous – having identical alleles at corresponding chromosomal loci

inertia - resistance to acceleration

kinetic energy - energy of motion

law - a formulation describing a relationship that is presumed to hold between or among phenomena for all cases in which the specified conditions are met

law of conservation of energy - the total energy of an isolated system remains constant regardless of changes within a system

law of conservation of mass - the total mass of an isolated system is unchanged by the interaction of its parts

1st law of thermodynamics - (see the law of conservation of energy)

2nd law of thermodynamics - the ability of a closed system to do work will decrease over time

mass - measure of a body's inertia, usually measured by gravitation (weight)

matter - anything having mass and volume

meiosis - cell division creating four reproductive cells, each with one half the chromosome number of the parent cell

mitosis - division of a cell creating two daughter cells containing the same number and kind of chromosomes as the mother cell

Newton's law of gravity - gravity is a force between two objects, directly proportional to the product of their masses and inversely proportional to the square of the distance between them

Newton's laws of motion -

1st- a body at rest tends to remain at rest, and a body in (straight line) motion tends to remain in motion unless acted upon by an outside force

2nd- the acceleration of an body is proportional to the body's mass and the force acting upon it. ($F = ma$)

3rd- if one body exerts a force on another, there is an equal and opposite reaction (opposite force) exerted on the first body by the second

organ - any distinct part of an organism specialized to perform one or more functions (will contain many different tissues)

paradigm - an example that epitomizes a set of beliefs at a point in time

pH - from a scale used to express acidity or alkalinity of a solution (pH of 7 is neutral, pH <7 is acid, pH >7 alkaline)

potential energy - energy stored in a body or system as a consequence of its position, shape, or state

pressure system - air mass- area of atmosphere possessing more or less uniform temperature and humidity

principle - a rule or law concerning the operation of natural phenomena or mechanical processes

revolution - orbital motion about a point

rotation - motion in which the path of every point in a moving object is circular or a circular arc centered on a specified axis

scatter plot - graph of points representing a collection of data

solubility - measure of the ability of a substance to be dissolved in a liquid

theory - systematically organized knowledge applicable in a relatively wide variety of circumstances, especially a system of assumptions, accepted principles, and rules of procedures devised to analyze, predict, or otherwise explain the nature or behavior of a specified set of phenomenon

tissue - collection of similar cells organized to carry out one or more particular functions

velocity - speed of a body in a specified direction

volume - space occupied by a body or mass of fluid

weather - state of atmospheric conditions (humidity, precipitation, temperature, cloud cover, visibility, wind) at any one place and time